Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for dynamic latency management in a real-time electronic communication comprising:

measuring [[a]] an instantaneous communication delay arising from a receiving data buffer two or more times over a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer;

determining a communication delay by averaging the instantaneous communication delay measurements;

accessing a predetermined range for a communication delay, the predetermined range including an upper and lower bound;

comparing the determined communication delay with the predetermined range for a communication delay;

if, based on the comparison, the determined communication delay is determined to be outside the upper or lower bound of the predetermined range, determining a latency adjustment necessary to adjust the size of the determined communication delay to within [[a]] the predetermined range;

~~determining a range for a size of the communication delay based on the measured communication delay~~ and

modifying a number of samples of a playback data block passing through the receiving data buffer based on the latency adjustment determined to be necessary to adjust the size of the determined communication delay ~~and on the range determined for the size of the communication delay~~;

wherein modifying the number of samples further comprises performing heuristic resampling of a playback block.

2. (Original) The method of claim 1 wherein the number of samples is modified without introducing audible artifacts.

3. (Cancelled)

4. (Cancelled)

5. (Original) The method of claim 1 wherein the real-time electronic communication includes an audio communication.

6. (Cancelled)

7. (Cancelled)

8. (Previously Presented) The method of claim 1 wherein performing heuristic resampling comprises:

analyzing multiple consecutive samples of audio data in the playback block;

identifying consecutive samples with minimal variation in a parameter of their data; and

adjusting the number of samples in the identified consecutive samples.

9. (Original) The method of claim 8 wherein adjusting the number of samples comprises removing a sample from the identified consecutive samples.

10. (Original) The method of claim 8 wherein adjusting the number of samples comprises adding a sample to the identified consecutive samples.

11. (Currently Amended) A computer program, residing on a computer-readable medium, for dynamically managing latency in a real-time electronic communication, comprising instructions for causing a computer to:

measure [[a]] an instantaneous communication delay arising from a receiving data buffer two or more times over a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer;

determine a communication delay by averaging the instantaneous communication delay measurements;

access a predetermined range for a communication delay, the predetermined range including an upper and lower bound;

compare the determined communication delay with the predetermined range for a communication delay;

if, based on the comparison, the determined communication delay is determined to be outside the upper or lower bound of the predetermined range, determine a latency adjustment necessary to adjust the size of the determined communication delay within [[a]] the predetermined range;

~~determine a range for a size of the communication delay~~; and

modify the number of samples of a playback data block passing through the receiving data buffer based on the latency adjustment determined to be necessary to adjust the size of the determined communication delay ~~and on the range determined for the size of the communication delay~~;

wherein instructions for causing a computer to modify the number of samples further comprise instructions for causing a computer to perform heuristic resampling of a playback block.

12. (Original) The computer program of claim 11 further comprising instructions for causing a computer to modify the number of samples without introducing audible artifacts.

13. (Cancelled)

14. (Cancelled)

15. (Original) The computer program of claim 11 wherein the real-time electronic communication includes an audio communication.

16. (Cancelled)

17. (Cancelled)

18. (Previously Presented) The computer program of claim 11 wherein instructions for causing a computer to perform heuristic resampling comprise instructions for causing a computer to:

analyze multiple consecutive samples of audio data in the playback block;
identify consecutive samples with minimal variation in a parameter of their data; and
adjust the number of samples in the identified consecutive samples.

19. (Original) The computer program of claim 18 wherein adjusting the number of samples comprises removing a sample from the identified consecutive samples.

20. (Original) The computer program of claim 18 wherein adjusting the number of samples comprises adding a sample to the identified consecutive samples.

21. (Currently Amended) A computer system running programmed processes comprising a process for dynamically managing latency in a real-time electronic communication, which process causes the computer system to:

measure [[a]] an instantaneous communication delay arising from a receiving data buffer two or more times over a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer;

determine a communication delay by averaging the instantaneous communication delay measurements;

access a predetermined range for a communication delay, the predetermined range including an upper and lower bound;

compare the determined communication delay with the predetermined range for a communication delay;

if, based on the comparison, the determined communication delay is determined to be outside the upper or lower bound of the predetermined range, determine a latency adjustment necessary to adjust the size of the determined communication delay within [[a]] the predetermined range;

~~determine a range for a size of the communication delay~~; and

modify the number of samples of a playback data block passing through the receiving data buffer based on the latency adjustment determined to be necessary to adjust the size of the determined communication delay ~~and on the range determined for the size of the communication delay~~;

wherein instructions for causing a computer to modify the number of samples further comprise instructions for causing a computer to perform heuristic resampling of a playback block.

22. (Original) The computer system of claim 21 wherein the number of samples is modified without introducing audible artifacts.

23. (Cancelled)

24. (Cancelled)

25. (Original) The computer system of claim 21 wherein the real-time electronic communication includes an audio communication.

26. (Cancelled)

27. (Cancelled)

28. (Previously Presented) The computer system of claim 21 wherein performing heuristic resampling comprises:

analyzing multiple consecutive samples of audio data in the playback block;

identifying consecutive samples with minimal variation in a parameter of their data; and

adjusting the number of samples in the identified consecutive samples.

29. (Original) The computer system of claim 28 wherein adjusting the number of samples comprises removing a sample from the identified consecutive samples.

30. (Original) The computer system of claim 28 wherein adjusting the number of samples comprises adding a sample to the identified consecutive samples.

31. (Currently Amended) The method of claim 1 wherein accessing a predetermined range for a communication delay comprises accessing an optimal range ~~the range determined~~ for the ~~size of the~~ communication delay ~~is an optimal range~~.

32. (Currently Amended) The computer program of claim 11 wherein accessing a predetermined range for a communication delay comprises accessing an optimal range ~~the range determined~~ for the ~~size of the~~ communication delay ~~is an optimal range~~.

33. (Currently Amended) The computer system of claim 21 wherein accessing a predetermined range for a communication delay comprises accessing an optimal range ~~the range determined~~ for the ~~size of the~~ communication delay ~~is an optimal range~~.

34. (New) The method of claim 1 further comprising:

if at least one individual delay is present during the time window, and the individual delay is above zero by a threshold amount, decreasing the upper and lower bounds of the predetermined range;

if no individual delays are measured during the time window, increasing the upper and lower bounds of the predetermined range; and

modifying the predetermined range based on the decreased or increased upper and lower bounds.

35. (New) The computer program of claim 11 further comprising instructions for causing a computer to:

if at least one individual delay is present during the time window, and the individual delay is above zero by a threshold amount, decrease the upper and lower bounds of the predetermined range;

if no individual delays are measured during the time window, increase the upper and lower bounds of the predetermined range; and

modify the predetermined range based on the decreased or increased upper and lower bounds.

36. (New) The computer system of claim 21 wherein the process for dynamically managing latency further causes the computer system to:

if at least one individual delay is present during the time window, and the individual delay is above zero by a threshold amount, decrease the upper and lower bounds of the predetermined range;

if no individual delays are measured during the time window, increase the upper and lower bounds of the predetermined range; and

modify the predetermined range based on the decreased or increased upper and lower bounds.

37. (New) The method of claim 1 wherein a complete cycle of high-to-low fluctuations in the receiving data buffer comprises a cycle that takes into account fluctuations in the data buffer size, the fluctuations being caused by a relationship between the asynchronous processes of receiving data from a source and outputting data for playback.

38. (New) The computer program of claim 11 wherein a complete cycle of high-to-low fluctuations in the receiving data buffer comprises a cycle that takes into account fluctuations in the data buffer size, the fluctuations being caused by a relationship between the asynchronous processes of receiving data from a source and outputting data for playback.

39. (New) The computer system of claim 21 wherein a complete cycle of high-to-low fluctuations in the receiving data buffer comprises a cycle that takes into account fluctuations in the data buffer size, the fluctuations being caused by a relationship between the asynchronous processes of receiving data from a source and outputting data for playback.

40. (New) A method for dynamic latency management in a real-time electronic communication comprising:

measuring an instantaneous communication delay arising from a receiving data buffer two or more times over a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer;

determining a communication delay by averaging the instantaneous communication delay measurements;

accessing a predetermined range for a communication delay;

comparing the determined communication delay with the predetermined range; and making determinations related to latency adjustment based on the comparison.